

A USER'S VIEW • BY JERRY POURNELLE

Federal Express Can Even Deliver the File Transfer Blues

A few days before we headed for New Orleans and the American Association for the Advancement of Science meeting, Russell Seitz asked me to upload his "Nuclear Sizzle," a clever spoof on "Nuclear Winter," onto an electronic bulletin board. Normally I wouldn't consider doing a thing like that, but Seitz and I go back a ways; some day I'll have to tell you about our adventures back so far in the Guatemalan Highlands that the Quiche Maya inhabitants hadn't even heard about the Spanish Conquest. "Sure," I said, "I'll get it done, but you've got to give it to me in electronic form. I'm not about to type that in."

Since the article had been published in the New York Review of Science Fiction, Seitz — who has a thorough understanding of some very esoteric technology, but hasn't a clue as to how small computers are used, thought that would be no problem. "I'll get them to mail you a disk," he said.

I thought no more about it until, literally 15 minutes before we had to leave for the airport, a Federal Express package arrived with the disk in question. I'd been told I'd get a 3½-inch MS-DOS disk of the article in Word Perfect format. When I'm going to be away for any time at all I always carry the Zenith 286 Supersport laptop. It has a built-in modem, and its hard disk holds a number of word processor programs, including Word Perfect. "Better late than never," I thought, figuring that I could read in the program, save it in ASCII, and upload it from New Orleans.

Then I looked at the disk. It wasn't in Word Perfect format, it was in Microsoft Word format. I don't keep Word on my laptop. Many of Word's best features disappear if you have no mouse. If I start carrying a trackball for the laptop, things may be different. Still, I have programs that will convert Word files to ASCII for uploading, so it shouldn't be a problem. Then I looked at the disk again.

It wasn't a PC disk at all. It was for a Macintosh. There was no way I was going to read that with a Zenith Supersport. But by one of those coincidences that make you believe in statistics, the same Fedex delivery brought a large package from Traveling Software; and inside that were two copies of Laplink III Mac, program and cables.

I glanced at my watch. Seven minutes until we had to be on our way. I'd never used this program to transfer from a Mac to a PC. Still — how hard could it be? I started to work. Copy the program into the PC and invoke it. It says it's looking for a connection to the Mac. Install on the Mac. It's waiting. Now plug the cable into the Mac. . . .

Of course my Mac IIx and my Cheetah PC are just too far apart for the cable to reach. An Atari game cable made an acceptable extension; as soon as I plugged it in, both screens changed. The two machines were in communication.

Three minutes later I had the file transferred to the Cheetah. It took one more minute to read it off onto a disk in ASCII format, ready for uploading, and we were on our way to the airport — and I had yet to crack the manual.

Traveling Software's link programs have always been easy to use, but this has to be some kind of record.

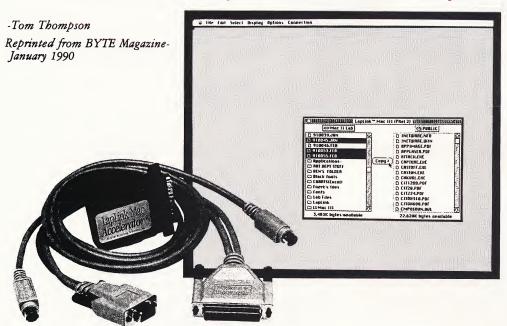
*Reprinted from InfoWorld Magazine-March 19, 1990



Traveling Software, Inc. 18702 North Creek Parkway Bothell, Washington 98011 U.S.A. 1-800-662-2652 Now Accelerator optional.

BYTE

Move It Anywhere with Laplink MacIII



ntil recently, if you wanted to move a plethora of files from one Macintosh to another, your choices were either expensive or complicated beyond belief. Ironically, those in DOSdom were better off: A utility program from Traveling Software, called LapLink, allowed easy batch-file transfers between computers via a serial cable. The company also introduced LapLink Mac, which let you copy files in bulk from an IBM PC to a Mac. This was fine if you were migrating from one machine to another, but what the Mac community sorely needed was Mac-to-Mac file transfer capability. This, unfortunately, was precisely what earlier versions of Lap-Link Mac lacked.

Leave it to Traveling Software not to overlook this need for too long. LapLink Mac III not only delivers the traditional Mac-to-PC batch-file transfers, but it also handles Mac-to-Mac transfers. And you accomplish transfers between Macs in a variety of ways: via a serial cable, the AppleTalk network, or a modem. Passwords are required for transferring files over the network or through a modem, which is an important security feature. If you're trying to put files onto a Mac Portable to do a presentation, you can even use a special optional SCSI cable to perform a high-speed transfer directly to the Portable's hard disk drive. Why no SCSI ID conflict with the Mac Portable's CPU? It turns out that the SCSI ID of the Portable can be modified by software, a feature used by LapLink Mac III.

The package comes with software for both the Mac and the PC. A unique cable solves your serial-port connection hassles: One end of the cable has a male mini-DIN-8 connector (for a Mac); the other end is a three-headed hydra that has a female DB-25 connector (for a PC), a female DB-9 connector (for a PC), and another male mini-DIN-8 connector (for a Mac). Transfers between Macs over this

serial cable can hit a peak of 750,000 bps, well over the rated maximum of 57,000 bps. LapLink Mac III manages this feat with a small accelerator module that plugs into the DB-25 connector. This accelerator uses an oscillator that clocks the data through the serial ports at the higher rate. It's the same technique DaynaTALK and TOPS FlashBox use with their LocalTalk network boosters.

I tried a beta version of Lap-Link Mac III on a Mac Plus, a Mac II, a Mac IIx, and a Mac IIci. The PC software wasn't very stable, but that's OK. Given Traveling Software's track record with the PC-only version, I'm sure it will be fixed. Instead, I chose to look at how LapLink Mac III handled new ground: moving Mac files about. The Mac interface

is considerably improved over the earlier versions: Instead of a small window with the transfer managed by the PC, you have two windows that present an SFFile-style directory of files on the source and target machines. Make a few mouseclicks to select files, and you're started. Transfers over the serial cable with the accelerator were fast and smooth using both Finder and Multi-Finder. The transfers over BYTE's LocalTalk network ran more slowly, but some of the delay is due to AppleTalk's protocol overhead.

I left LapLink Mac III running on the Mac II equipped with a Haves modem at work and dialed into it from home using a Mac Plus and an Apple modem. Using the appropriate password (you can give out several passwords, each one providing different degrees of access), I connected successfully and could view not only the files on the Mac II. but those files on the network servers as well. I was able to send and receive files to the "remote" computer, but the transfer rate is much slower than a conventional XMO-DEM transfer. Traveling Software promises that the modem and network transfer rates will be faster in the release version.

Best of all, these transfers can be bidirectional—that is, the receiving system can initiate a file transfer as well. I connected two Mac IIs by modem and sent files from each to the other simultaneously. LapLink Mac III handled all transfers (i.e., serial, network, and modem) reliably.

The variety of ways Lap-Link Mac III moves files about will solve many file transfer headaches. The modem option even lets you send a software update to that poor soul in the field. I'll be direct: This product will answer a lot of problems for Mac users. If you need to move a lot of data about among different Macs or even to PCs, LapLink Mac III provides the means.

THE FACTS

LapLink Mac III \$189.95

Requirements:
Mac Plus, SE, SE/30, II
family, or Portable
running System 5.0 or
higher. IBM PC, XT, AT,
PS/2, or compatible with
256K bytes of RAM

running MS-DOS 2.11 or higher.

Traveling Software, Inc. 18702 North Creek Pkwy. Bothell, WA 98011 (206) 483-8088 Traveling Software

MacUser

Need to transfer a file from your laptop to a Mac? LapLink Mac is a great solution.

By Stephan Somogyi

ou've been traveling. You wanted to get some work done on your trip, so you took your Toshiba 1000SE (or, if you wanted to combine business with an aerobic workout, your Macintosh Portable) with you. Now you're back in the office. You need to get your files off the portable and onto your office Mac. There's SneakerNet, of course. But if you have a lot of data to move, or if it's on 5.25-inch disks, things can get tedious.

Enter LapLink Mac, release III, from Traveling Software. LapLink Mac comes in two flavors: a Connectivity Pac and a Network Pac. The Connectivity Pac (\$189.95) is a complete hardware and software solution for moving files quickly and easily between two Macs or between a Mac and a PC. The hardware part is a cable. Don't laugh: This is the world's greatest cable! At each end, it has a DIN-8 Mac serial plug (the kind that attaches to the modem port of most Macs); the cable also has two serial connectors that are common on DOS machines, one DB-25 and one DB-9. The software consists of a single Mac disk, two 3.5-inch DOS disks, and three 5.25-inch DOS disks everything you need to get set up.

The Connectivity Pac can also be used over AppleTalk networks, but it is limited to two users. If you plan to use LapLink mainly over AppleTalk, you may want to consider a Network Pac (\$299.95), which is intended for multiple users on AppleTalk. The Network Pac doesn't include the cable, but it allows up to five users to be active on a network. Additional Network Pacs increase this number in increments of five.

LapLink has a simple, straightforward interface. The Mac application has a Connection menu with several different options for connecting to other computers (see Figure 1). Once the connection is made, you can initiate file transfers from either side. The Mac side displays a Font/ DA Mover-style dialog box that contains two file lists: One lists your local Mac volumes, and the other lists volumes that are available on the remote machine (see Figure 2). Mac users can also use the LapLink INIT, which allows another LapLink user to access your machine in the background even if you aren't running the LapLink application. Using the INIT rather than the application degrades throughput by some 70 percent, though.

Mac-to-Mac

If the computers involved in your LapLink file transfer are already on an AppleTalk network, the AppleTalk-to-Mac connection option is the easiest, but it is relatively slow at LocalTalk speeds (see Figure 3). Using the cable for a direct connection, along with the accelerator Traveling Software provides, is roughly twice as fast as transferring over LocalTalk. The accelerator attaches to the multiheaded cable's DB-25 connector.

But LapLink Mac doesn't stop here. As you may recall, we began with a tale of a hardworking employee on the road with a portable computer, possibly a Mac Portable. Pretend you're that user and that you're about to leave on a trip. You have megabytes of information on the Mac in your office that you need to transfer to the Portable before you leave so you can do a PowerPoint presentation when you arrive in Poughkeepsie. Don't you wish you could transfer files directly from the hard disk in your office Mac to the Portable's hard disk? With LapLink's SCSI Disk Link application, you can.

Using SCSI Disk Link, you can mount the Portable's internal hard disk as a SCSI hard-disk volume on a second Mac. This feature alone justifies LapLink's price for Mac Portable owners. During such transfers, the Portable is rendered comatose by the software, but you can copy files to and from its hard disk by using the Finder, as quickly and easily as if it were just another hard-disk drive connected to your Mac's SCSI chain. In fact, that's precisely what it is.

There are some drawbacks to this approach. First, before connecting the SCSI cable to the Portable, you must turn off all the other SCSI devices in the chain, including the other Mac. Then, obviously, after you connect the cable, you have to turn everything back on and wait for your Mac to go through its startup process. (If your Mac has even half as many INITs as mine, that's good for a trip to the coffee machine.) Second, if you have other SCSI devices (scanners or external hard-disk drives, for example), you have to deal with the bane of SCSI existence: termination. The Portable must be the last device in the chain, and no other device can be terminated. Third, if you have no other SCSI devices attached, you need a 25-pin-to-25-pin SCSI cable. Traveling Software sells this type of cable for \$14.95. But there's nothing special about it: You can just as easily (and probably less expensively) stop at Radio Shack and pick up a 25-wire ribbon cable with male DB-25 connectors at each end.

If the amount of data you need to move justifies the hassle involved in setting up a SCSI transfer, you can amaze your friends and neighbors with its speed.

Previous versions of LapLink Mac required that all transfers between a PC and a Mac be initiated and controlled from the PC side. With LapLink Mac III, either a Macintosh or a PC can now initiate a file transfer in either direction, although some of the special features available for PC-to-Mac transfers are available only from within the PC LapLink application. Mac-to-PC transfers are not as fast as Mac-to-Mac transfers, but the former are certainly a much cheaper solution than attaching an external DOS disk drive, such as a DaynaFile, to a Mac.

Several features of LapLink Mac III enhance the product beyond simple file transfer. Perhaps the best one is its built-in format translation. If you are transferring to the Mac a file that was originally created by a DOS word processor, you can convert its format to MacWrite as you transfer. For text-file transfers, LapLink provides a basic set of file-clean-up options, such as the ability to strip line feeds (PCs use them for line endings; the Mac doesn't) and high-order bits, which WordStar uses for formatting.

LapLink also supports Mac icons. When you copy a PC file to a Mac, you can choose from a list of Mac file-format types (such as Word/text) and applications. LapLink Mac assigns the correct Type and Creator to the Mac file, so the file appears on the Mac desktop with a double-clickable icon for the file type you choose. In the next version, it'd be nice to see LapLink "learn" to always associate a PC file with a specific file extension (for example, .wp for Word-Perfect) with the same Mac icon.

The Bottom Line

If you use a portable computer, either a PC laptop or the Mac Portable, in addition to your Mac, you should have LapLink Mac. The functionality of SCSI Disk Link and the Mac-to-PC features make LapLink Mac de rigueur for anyone who moves data through any of these paths.

MacUser August 1990

Connection	
Self	 #=
No Connectio	n
AppleTalk to	Mac
Direct to Mad	D
✓ Direct to PC	:W
Modem to Ma	ac/PC

Figure 1: The LapLink Connection menu lets you select from among a variety of connection types for copying files to and from a remote computer.

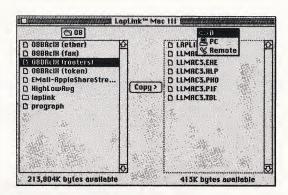


Figure 2: LapLink Mac displays a standard Mac dialog box that shows the files on your Mac and on the computer to which it is connected. Copying a file is a simple matter of selecting it and clicking on the Copy button.

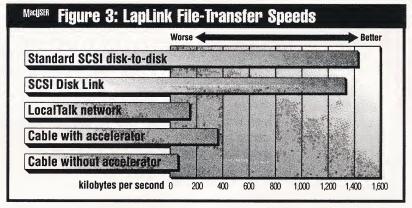


Figure 3: In our file-transfer testing, we moved a 512K file via LapLink Mac's various routes. The disk-to-disk and SCSI Disk Link times were almost identical; the difference in throughput is due to the different hard-disk-drive mechanisms.

The direct connection with LapLink Mac's accelerator is still superior to the network connection and the "unaccelerated" direct file transfer. Using the SCSI Disk Link is the best way of moving files with LapLink Mac.

Report Card

LapLink Mac III Connectivity Pac \$\$\$\$\frac{1}{2}\$

A comprehensive package that includes a multipurpose serial cable and several software applications that let you copy files from a Mac to another Mac or a PC.

Pros: SCSI Disk Link between a desktop Mac and a Mac Portable is very fast. PC-to-Mac transfers can be controlled from either the Mac or the PC. Con: Slow Mac-to-PC transfers.

Version: 3.0.

Requires: Mac Plus with 1 megabyte of RAM, System 5.0 or later, and DOS version 2.11 or later.

List Price: \$189.95.

Traveling Software, 18702 N. Creek

Parkway, Bothell, WA 98011; (800) 662-2652 or (206) 483-8088.



Traveling Software, Inc. 18702 North Creek Parkway Bothell, Washington 98011 U.S.A. 1-800-662-2652



PRACTICAL LINKING SOLUTIONS

Now that more and more offices have multiple Macs and PCs, users need a simple, powerful way to move files between two or more machines. LapLink Mac fits the bill with a variety of transfer options to fit your particular needs.

LapLink Mac lets you transfer files between a Mac and a PC or between an unlimited number of Macs on an AppleTalk network. Use either your existing AppleTalk-compatible cabling or connect the cable included with LapLink Mac, run the software and start transferring. A simple split-screen design on both the Mac and the PC makes it easy to select which files you want to transfer, from either a Mac or a PC. Plus, file translators let you convert word processing documents from Mac formats to PC formats—or vice versa. You can even transfer files over a modem!

FEATURES & BENEFITS OF LAPLINK MAC

- Includes a special cable for linking a Mac to a PC, or to another Mac, without the need for additional hardware or software
- Allows an unlimited number of Mac users on an AppleTalk network to transfer files using existing AppleTalk-compatible cabling
- No dedicated server required for AppleTalk peer-to-peer transfers
- Moves files quickly and accurately between a Mac and a PC at speeds up to 115,200 bits per second (bps)
- Unique LapLink Mac Accelerator (optional) can boost Mac-to-Mac transfer speeds to 750,000 bps—about 3 megabytes a minute
- File transfers can be controlled from either a Mac or a PC—use the computer you're most comfortable with
- Operates in the background as an INIT with either Finder or MultiFinder, allowing file transfer without interruptions
- Supports modem file transfer between Macs or between a Mac and a PC running LapLink Mac at speeds up to 9,600 bps. Remote answer lets you contact unattended Macs
- Translate word processing documents from PC to Macintosh formats (and vice versa) easily with Word for Word[™] translators from MASTERSOFT[®], Inc.
- SCSI Disk Link[™] software & SCSI cable (optional) allows direct SCSI connection between the Mac Portable and any other Macintosh

LapLink Mac. The complete file transfer solution for Macs and PCs.



Like all Traveling Software linking solutions, LapLink Mac is backed by our expert technical support staff. If you have any technical questions about LapLink Mac, please call us at (206) 483-8088, 8:00am to 5:00pm Pacific time.

LAPLINK MAC INCLUDES:

- 3.5-inch Macintosh and 3.5-inch and 5.25-inch DOS diskettes
- Universal connecting cable
- Full documentation

TRANSLATORS:

DCA/RFT

MS Word 3.0, 3.1, 4.0, 5.0

MacWrite 4.5, 4.6, 5.0

MultiMate 3.3

MultiMate Advantage 3.6

MultiMate Advantage II

O&A Write 3.0

WordPerfect 3.0, 4.1, 4.2, 5.0

WordStar 3.30, 3.31, 3.45, 4.0, 5.0, 5.5 • Apple Macintosh Plus or above

XyWrite 3, 3+

Standard ASCII

Smart ASCII

Stripped ASCII

SYSTEM REQUIREMENTS:

- Macintosh:
- Apple Macintosh Plus or above
- 300K available RAM
- System 5.0 or later

—PC (for Mac-to-PC or PC-to Mac transfers only):

- IBM PC/XT/AT, PS/2, or 100% compatible
- 256K available RAM
- DOS 2.11 or higher

— SCSI Disk Link:

- Apple Macintosh Portable
- SCSI cable (not included)

LapLink Mac is just \$149.95, suggested retail price.

HERE'S WHAT PEOPLE ARE SAYING ABOUT LAPLINK MAC:

MacWEEK, April 17, 1990

"This latest incarnation of LapLink Mac provides the fastest and most flexible file transfer utility both for users who use Macs exclusively and for those who regularly use both Macs and PCs. Mac Portable users in particular will not want to transfer files to other Macs without it." - Dale Coleman

MacUser, August 1990—\$ \$ \$ \$ \dagger \

"LapLink Mac III is highly recommended for anyone who uses a portable computer in addition to the Mac." - Stephan Somogyi

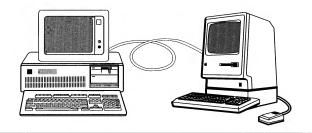
> TRAVELING SOFTWARE, INC. 18702 North Creek Parkway, Bothell, WA 98011 (206) $483-8088 \bullet (800)$ 662-2652





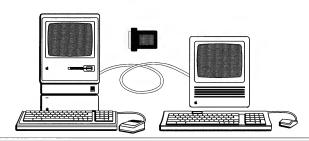
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Everything you need for fast Mac®-to-PC and Mac-to-Mac file transfers.



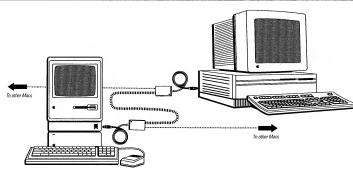
Mac-to-PC

- Provides fast PC-to-Mac file transfer speeds up to 115,200 bps. (includes cable)
- Lets you control file transfers from either the Mac or PC with a similar, easy-to-use split window interface
- Transfer multiple files with one step
- Includes Word for Word[™] translators from Mastersoft[®] to convert documents between popular word processing formats



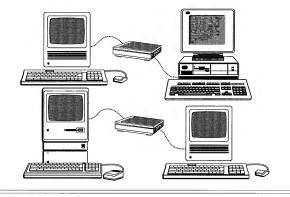
Mac-to-Mac

- Provides Mac-to-Mac file transfer speeds up to 115,200 bps. using the universal cable included in the package.
- Provides easy, multiple file transfers between Macs
- Great for setting up new computers
- The LapLink Mac INIT allows it to operate completely in the background
- Optional LapLink Mac Accelerator[™] boosts speeds to 750,000 bps.



Mac to other Macs over AppleTalk®

- Transfer files between an unlimited number of Macs via an AppleTalk network
- Provides easy file transfer between Macs using your existing AppleTalk network cabling
 - Three-level password protection provides access to only those users who you authorize
- The LapLink Mac INIT allows operation completely in the background, even when working under Finder™
- No dedicated server required



Mac-to-Mac or PC using a modem

- Supports remote Mac-to-Mac or PC-to-Mac phone connections at up to 9,600 baud using any 100% Hayes[™]-compatible or Apple modem
- Uses the same interface as any other LapLink Mac III connection no new commands to learn
- Password protection to ensure security of your files and hard disk
- Answers modem calls when running in the background
- Maintains a handy telephone log for frequently dialed phone numbers



SCSI Disk Link™/Mac-to-Mac Portable

- SCSI Disk Link software provides a direct SCSI connection between the Macintosh Portable™ and other Macintoshes at SCSI transfer speeds (10,000,000 bps)
- Allows users of a desktop Mac to use the Macintosh Portable's internal drive as a separate hard disk on the desktop computer
- Copying files and folders is as fast and easy as clicking and dragging

LapLink Mac III

Suggested Retail Price: \$149.95

Version #: 3.2 (January 1991)

Package includes: 3 1/2" and 5 1/4" PC diskettes and a 3 1/2" diskette for the Macintosh, Mac-to-PC manual, Mac-to-Mac manual, AppleTalk Network User's Guide and universal serial cable.

Optional LapLink Mac Accelerator™ available exclusively through Traveling Software, Inc.

Minimum system requirements:

Macintosh:

- Apple Macintosh Plus or later
- 300K available RAM
- System 5 or later
- AppleTalk hardware required for AppleTalk connections (not included)

PC (for Mac-to-PC and PC-to-Mac connections):

- IBM PC/XT/AT, PS/2 or 100% compatible
- 256K minimum RAM (512K Recommended)
- PC-DOS/MS-DOS 2.11 or higher

SCSI Disk Link:

- Apple Macintosh Portable
- Apple Macintosh Plus or later
- System 5 or later
- SCSI cable (not included)

Traveling Software 18702 North Creek Parkway Bothell, WA 98011 Phone: 206-483-8088 800-662-2652

TRAVELING SOFTWARE

